MATERIAL SAFETY DATA SHEET

DATE PREPARED: 06/26/2001

Emergency Phone: 1-800-225-2883

MSDS No: 7114

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ORTHO® Deer Repellent (Ready-To-Use)

PRODUCT DESCRIPTION: Animal Repellent

MANUFACTURER

24 HR. EMERGENCY TELEPHONE NUMBERS

The ORTHO Group P.O. Box 1749 Columbus, OH 43216

EPA REG. NO.: 66676-1-239 PN: 7061

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical NameWt.%CAS#Denatonium Benzoate0.23734-33-6Other Ingredients99.8

COMMENTS: No reportable quantities of hazardous ingredients (e.g., quantities equal to or greater than 1%) are present in this product. Contains 0.017 lbs. (7.76 g) active ingredient known as Bitex® per gallon.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: CAUTION

- Avoid contact with eyes, skin, or clothing.
- Harmful if absorbed through the skin.
- Wash thoroughly with soap and water after handling.
- Do not apply to food or feed crops.
- KEEP OUT OF REACH OF CHILDREN

POTENTIAL HEALTH EFFECTS

EYES: May cause eye irritation. **SKIN:** May cause skin irritation.

SKIN ABSORPTION: May be harmful if absorbed through the skin. **INGESTION:** Ingestion of large quantities of the product may be harmful.

INHALATION: This substance may be irritating to the respiratory tract if inhaled.

MEDICAL CONDITIONS AGGRAVATED: May provoke asthmatic response in persons with asthma who are sensitive to airway irritants. Persons allergic to Lignocaine should avoid contact with this product.

ROUTES OF ENTRY: Ingestion, skin, and inhalation.

4. FIRST AID MEASURES

EYES: Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.

SKIN: If on skin or clothing, take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

INGESTION: If swallowed, call a poison control center or doctor immediately for treatment advice. Have person sip glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Never give anything by mouth to an unconscious person.

INHALATION: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

COMMENTS: See product label for specific First Aid Measures. The above measures are the most conservative and would apply in the event a product label is not immediately available.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: >200°F

EXTINGUISHING MEDIA: CO2, Dry Chemical, Foam, Alcohol-type Foam, Water Fog.

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide, carbon dioxide, nitrous oxides, acetic acid, and low molecular weight hydrocarbons.

EXPLOSION HAZARDS: Not a fire or explosion hazard under normal storage conditions.

FIRE FIGHTING EQUIPMENT: Wear butyl rubber boots, gloves, full body suit, and NIOSH/MSHA self-contained air supply.

6. ACCIDENTAL RELEASE MEASURES

GENERAL PROCEDURES: Clean up spills immediately. Cover spill with a generous amount of Oil Dry, cat litter, clay, rags or other absorbent. Use a stiff broom to mix thoroughly. Sweep up and place in a disposable container. Scrub contaminated area with detergent and water using a stiff broom. Pick up liquid with additional absorbent and place in a disposable container.

7. HANDLING AND STORAGE

HANDLING: See label. Wash hands with soap and water after handling product. Avoid container breakage. Avoid inhalation or contact with skin, eyes, or clothing. Keep out of lakes, streams, or ponds. KEEP OUT OF REACH OF CHILDREN.

STORAGE: See label. Store only in original container in a dry place inaccessible to children and pets. KEEP FROM FREEZING.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: See product label. No special ventilation is necessary under normal use conditions. However, if operating conditions create high airborne levels of vapor or mist, a NIOSH/MSHA approved organic vapor/mist respirator should be worn.

PERSONAL PROTECTION

EYES AND FACE: See label for appropriate protective equipment under normal conditions of product application. Wear chemical goggles or face shield during operations such as mixing or transfer or other activities when there is potential for eye contact or if splashing hazard exists. Have eye flushing equipment immediately available with enough fresh water to flush the eyes for at least 15 minutes.

SKIN: See product label for protective equipment recommended under normal application conditions. Chemical resistant gloves, coveralls, apron, boots, are recommended as necessary to prevent skin contact during workplace operations.

RESPIRATORY: See label. No special respiratory protection is required under normal use conditions. However, if workplace operating conditions create high airborne concentrations of product, a NIOSH/MSHA approved organic vapor respirator should be used.

WORK HYGIENIC PRACTICES: Use good housekeeping practices and avoid contact with skin, eyes, and clothing while handling. Wash hands after use and any contaminated clothing before reuse.

COMMENTS: The ACGIH Threshold Limit Values (TLV) for nuisance (inert) dusts containing < 1% crystalline silica and no asbestos are: 10 mg/m3 inhalable particulates and 3 mg/m3 respirable particulate. The OSHA TLV is 15 mg/m3 total dust, 5 mg/m3 respirable fraction. Material exposure limits are for airborne 8-hour time-weighted averages and apply only to occupational exposures.

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200):

EXPOSURE LIMITS

OSHA PEL ACGIH TLV ACGIH STEL

None None

<u>Chemical Name</u>

Denatonium Benzoate

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear liquid **pH:** No Data Available

BOILING POINT: No Data Available **SPECIFIC GRAVITY:** No Data Available

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: See label. Keep away from extreme heat, ignition sources, and flames.

STABILITY: Stable.

POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION: No Data Available

INCOMPATIBLE MATERIALS: None known.

11. TOXICOLOGICAL INFORMATION

SENSITIZATION: Denatonium benzoate has produced contact urticaria in a subject tested with M-spirit and Bitrex® diluted to 26 mg/ml.

CARCINOGENICITY:

CARCINOGENICITY COMMENTS: IARC, No; NTP, No; OSHA, No.

GENERAL COMMENTS: Acute toxicology information is limited for this product.

12. ECOLOGICAL INFORMATION

GENERAL COMMENTS: Consult product label for use restrictions. Do not use on food or feed crops. Do not apply aerially. Do not apply product through any type of irrigation system or hose-end sprayer. Do not apply directly to or where product might drift onto stone, concrete, or siding.

Do not apply directly to water, to areas where surface water is present of to intertidal areas below the mean high water mark. Do not clean equipment or dispose of equipment wash waters in a manner that will contaminate water resources or arable land.

13. DISPOSAL CONSIDERATIONS

PRODUCT DISPOSAL: Carefully follow all label directions and precautions. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

EMPTY CONTAINER: Do not reuse container. Rinse throughly before discarding in trash.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION) PROPER SHIPPING NAME: Not DOT regulated

SPECIAL SHIPPING NOTES: The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

15. REGULATORY INFORMATION

GENERAL COMMENTS: Contact local authorities for disposal of large quantities of unused product.

16. OTHER INFORMATION

NFPA CODES

FIRE: 1 HEALTH: 1 REACTIVITY: 0

APPROVAL DATE: 06/29/2001

REVISION SUMMARY New MSDS

COMMENTS: Use of this product is regulated by the U.S. Environmental Protection Agency (EPA) through the approved product label. It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

MANUFACTURER DISCLAIMER: The information contained herein is, to the best of the Manufacturer's (see Section 1) knowledge and belief, accurate and reliable as of the date of preparation of this document. However, no warranty or guarantee, express or implied, is made as to the accuracy or reliability, and the Manufacturer shall not be liable for any loss or damage arising out of the use thereof. No authorization is given or implied to use any patented invention without a license. In addition, the Manufacturer shall not be liable for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices or from any hazards inherent in the nature of the product.